

Complete Summary

TITLE

Home health care: percentage of patients who are confused less often.

SOURCE(S)

Crisler KS, Hittle DF, Conway KS, West LR, Shaughnessy PW, Richard AA, Powell MC, Lawlor KL, Donelan-McCall NS, Beaudry JM, Baillie LL, Schlenker RE, Engle K. OASIS and outcome-based quality improvement in home health care: research and demonstration findings, policy implications, and considerations for future change. Vol. 3, Research and clinical supporting documents [9 supporting documents]. Denver (CO): Center for Health Services Research, University of Colorado Health Sciences Center; 2002 Feb 1.

Hittle DF, Crisler KS, Beaudry JM, Conway KS, Shaughnessy PW, West LR, Richard AA. OASIS and outcome-based quality improvement in home health care: research and demonstration findings, policy implications, and considerations for future change. Vol. 4, OASIS chronicle and recommendations. Denver (CO): Center for Health Services Research, University of Colorado Health Sciences Center; 2002 Feb 1.

Shaughnessy PW, Crisler KS, Hittle DF, Schlenker RE, Conway KS, West LR, Powell MC, Richard AA. OASIS and outcome-based quality improvement in home health care: research and demonstration findings, policy implications, and considerations for future change. Vol. 1, Policy and program overview. Denver (CO): Center for Health Services Research, University of Colorado Health Sciences Center; 2002 Feb 1.

Shaughnessy PW, Hittle DF, Crisler KS, Powell MC, Richard AA, Kramer AM, Schlenker RE, Steiner JF, Donelan-McCall NS, Beaudry JM, Engle K, Conway KS, West LR. OASIS and outcome-based quality improvement in home health care: research and demonstration findings, policy implications, and considerations for future change. Vol. 2, Research and technical overview. Denver (CO): Center for Health Services Research, University of Colorado Health Sciences Center; 2002 Feb 1.

Measure Domain

PRIMARY MEASURE DOMAIN

Outcome

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure assesses the percentage of home health care patients who improve in confusion frequency compared to a prior assessment. A patient who improves in the frequency of confusion will be confused less often.

The measure identifies the time of day patients are likely to be confused, if at all. Very slight confusion usually occurs only at intervals, but as confusion worsens, it becomes more constant.

RATIONALE

If patients are confused, they may not be able to take care of themselves. Their decision-making can be negatively affected by confusion. Confusion that goes untreated could affect their health, safety, and ability to stay at home. Being less confused may be a sign that they are meeting the goals of their care plan or that their health status is improving.

Home health staff will check patients at each visit for signs of confusion. They also will seek information from others about when and under what situations the patient becomes confused. Confusion could mean the patient is having a reaction to a medicine or further medical problems or that their mental status has worsened. If they are confused, their safety may be at risk since there is more of a chance that they will take their medicines incorrectly, fall, or injure themselves in their home. It is important to find the cause early and treat it in the right way. If patients do get confused, staff should teach them and their informal caregivers how to deal with confusion to limit its effect on the quality of their lives. Usually, if they are less confused, they are better able to help take care of themselves. It is also easier for home health staff and informal caregivers to provide care to them if they are less confused. Patients who live alone may not be able to continue independent living if they are too confused to be considered safe.

Some patients will remain confused or experience worsening confusion due to their medical conditions even though the home health care agency provides good care.

This is one of 41 OASIS-based measures for which Medicare-certified home health agencies receive performance reports from the Centers for Medicare & Medicaid Services (CMS). The reports cover Medicare and Medicaid adult non-maternity patients and compare each agency's rates to national reference rates and to the agency's own rates in the previous year. The reports provide home health

agencies with information they can use to improve quality of care by targeting care practices that influence specific patient functioning and health status, as part of a comprehensive quality improvement approach.

PRIMARY CLINICAL COMPONENT

Home health care; confusion

DENOMINATOR DESCRIPTION

Patients with a completed episode of care who were eligible to improve in confusion frequency (i.e., were not at the optimal level of health status according to the "When Confused" OASIS* item)

*Outcome and Assessment Information Set (OASIS)

NUMERATOR DESCRIPTION

Patients from the denominator who improved in confusion frequency compared to a prior assessment

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Use of this measure to improve performance
Variation in quality for the performance measured

EVIDENCE SUPPORTING NEED FOR THE MEASURE

Attachment A: Properties of individual outcome measures: Reader's guide to the outcome measures properties forms. [internet]. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2003 Mar [cited 2005 May 13]. Available: <http://www.ahrq.gov/qual/nhqr02/promesas.htm>.

Shaughnessy PW, Crisler KS, Hittle DF, Schlenker RE, Conway KS, West LR, Powell MC, Richard AA. OASIS and outcome-based quality improvement in home health care: research and demonstration findings, policy implications, and considerations for future change. Vol. 1, Policy and program overview. Denver (CO): Center for Health Services Research, University of Colorado Health Sciences Center; 2002 Feb 1.

Shaughnessy PW, Hittle DF, Crisler KS, Powell MC, Richard AA, Kramer AM, Schlenker RE, Steiner JF, Donelan-McCall NS, Beaudry JM, Mulvey-Lawlor KL, Engle K. Improving patient outcomes of home health care: findings from two demonstration trials of outcome-based quality improvement. J Am Geriatr Soc 2002 Aug; 50(8): 1354-64. [PubMed](#)

Technical expert panel meeting on home health measures. [internet]. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2002 October 21-22 [cited 2005 May 13]. Available: <http://www.ahrq.gov/qual/nhqr02/hhmtep.htm>.

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Accreditation
External oversight/Medicaid
External oversight/Medicare
Internal quality improvement
Quality of care research

Application of Measure in its Current Use

CARE SETTING

Home Care

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Measure is not provider specific

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Single Health Care Delivery Organizations

TARGET POPULATION AGE

Age greater than or equal to 18 years

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Frail elderly

INCIDENCE/PREVALENCE

In 2001, about 2.4 million elderly and disabled Americans received care from nearly 7,000 Medicare certified home health agencies.

EVIDENCE FOR INCIDENCE/PREVALENCE

2003 data compendium. [internet]. Baltimore (MD): Centers for Medicare & Medicaid Services; 2003[cited 2004 Nov 24]. [5 p].

Medicare use of selected types of long-term care. [internet]. Baltimore (MD): Centers for Medicare & Medicaid Services; 2003 Nov[cited 2004 Nov 24]. [1 p].

Other Medicare providers and suppliers. [internet]. Baltimore (MD): Centers for Medicare & Medicaid Services; 2003 Nov[cited 2004 Nov 24]. [1 p].

ASSOCIATION WITH VULNERABLE POPULATIONS

Many home health care patients are frail elders with chronic health conditions, functional disabilities, or cognitive impairments. Such patient characteristics are included in the statistical models used to risk adjust home health agency outcome rates for differences in the types of patients served. In addition, the capability exists to derive outcome rates separately for vulnerable populations for comparison with outcome rates for other population groups.

EVIDENCE FOR ASSOCIATION WITH VULNERABLE POPULATIONS

Center for Health Services Research, UCHSC. Documentation of prediction models used for risk adjustment of home health agency outcomes reported on the CMS Home Health Compare Web site. Denver (CO): Center for Health Services Research, UCHSC; 2003. 29 p.

Shaughnessy PW, Crisler KS, Hittle DF, Schlenker RE, Conway KS, West LR, Powell MC, Richard AA. OASIS and outcome-based quality improvement in home health care: research and demonstration findings, policy implications, and considerations for future change. Vol. 1, Policy and program overview. Denver (CO): Center for Health Services Research, University of Colorado Health Sciences Center; 2002 Feb 1.

Shaughnessy PW, Hittle DF. Overview of risk adjustment and outcome measures for home health agency OBQI reports: highlights of current approaches and outline of planned enhancements. Denver (CO): Center for Health Services Research, University of Colorado Health Sciences Center; 2002 Sep. 22 p. [28 references]

BURDEN OF ILLNESS

Unspecified

UTILIZATION

Unspecified

COSTS

Unspecified

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Getting Better
Living with Illness

IOM DOMAIN

Effectiveness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

All adult, non-maternity skilled care patients admitted to Medicare-certified home health agencies

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

Patients with a completed episode of care who were eligible to improve in confusion frequency (i.e., were not at the optimal level of health status according to the "When Confused" OASIS* item)

*Outcome and Assessment Information Set (OASIS)

Exclusions

Data collected about patients whose care is paid for entirely by sources other than Medicare or Medicaid, those under the age of 18, those receiving maternity services only, and those receiving only personal care/supportive services are not submitted to the federal government, therefore these types of patients are excluded from this measure. Patients whose status at start of care indicates a

nonresponsive level of consciousness or whose episode of home health care ends with death or with a transfer to an inpatient facility (i.e., hospital, rehabilitation facility, nursing home, or hospice) for 24 hours or more are excluded. Patients who have not yet been discharged or transferred to an inpatient facility (incomplete episode of care) are excluded.

DENOMINATOR (INDEX) EVENT

Therapeutic Intervention

DENOMINATOR TIME WINDOW

Time window precedes index event

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions

Patients from the denominator who improved in confusion frequency compared to a prior assessment

Exclusions

Patients from the denominator who did not improve in confusion frequency compared to a prior assessment

NUMERATOR TIME WINDOW

Episode of care

DATA SOURCE

Special or unique data

LEVEL OF DETERMINATION OF QUALITY

Not Individual Case

OUTCOME TYPE

Clinical Outcome

PRE-EXISTING INSTRUMENT USED

The Outcome and Assessment Information Set (OASIS) for Home Care

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Case-mix adjustment

Risk adjustment method widely or commercially available

DESCRIPTION OF ALLOWANCE FOR PATIENT FACTORS

To reduce the chance that a home health agency that serves sicker, older, or more frail patients looks worse in the quality measures, the quality measures are risk adjusted. Percentages are adjusted using predicted rates for each agency based on patient characteristics at admission to home health care. For a detailed explanation of risk adjustment please visit [Overview of Risk Adjustment and Outcome Measures for Home Health Agency OBQI Reports: Highlights of Current Approaches and Outline of Planned Enhancements](#).

STANDARD OF COMPARISON

External comparison at a point in time

Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Measure is based on the best research currently available, including testing in a national quality improvement demonstration. For more information, refer to OASIS and Outcome-based Quality Improvement in Home Health Care: Research and Demonstration Findings, Policy Implications, and Considerations for Future Change. Volume 4, OASIS Chronicle and Recommendations.

EVIDENCE FOR RELIABILITY/VALIDITY TESTING

Hittle DF, Crisler KS, Beaudry JM, Conway KS, Shaughnessy PW, West LR, Richard AA. OASIS and outcome-based quality improvement in home health care: research and demonstration findings, policy implications, and considerations for future change. Vol. 4, OASIS chronicle and recommendations. Denver (CO): Center for Health Services Research, University of Colorado Health Sciences Center; 2002 Feb 1.

Hittle DF, Shaughnessy PW, Crisler KS, Powell MC, Richard AA, Conway KS, Stearns PM, Engle K. A study of reliability and burden of home health assessment using OASIS. Home Health Care Serv Q2003;22(4):43-63. [PubMed](#)

Madigan EA, Fortinsky RH. Interrater reliability of the outcomes and assessment information set: results from the field. Gerontologist2004 Oct;44(5):689-92. [PubMed](#)

Identifying Information

ORIGINAL TITLE

Improvement in confusion frequency.

MEASURE COLLECTION

[Outcome and Assessment Information Set \(OASIS\)](#)

MEASURE SET NAME

[Outcome-Based Quality Improvement \(OBOI\) Measures](#)

SUBMITTER

Centers for Medicare & Medicaid Services

DEVELOPER

Center for Health Services Research, University of Colorado, under contract to
Centers for Medicare and Medicaid Services

INCLUDED IN

National Healthcare Disparities Report (NHDR)
National Healthcare Quality Report (NHQR)

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

1998 Oct

REVISION DATE

2002 Feb

MEASURE STATUS

This is the current release of the measure.

SOURCE(S)

Crisler KS, Hittle DF, Conway KS, West LR, Shaughnessy PW, Richard AA, Powell MC, Lawlor KL, Donelan-McCall NS, Beaudry JM, Baillie LL, Schlenker RE, Engle K.
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and demonstration findings, policy implications, and considerations for future change. Vol. 3, Research and clinical supporting documents [9 supporting documents]. Denver (CO): Center for Health Services Research, University of Colorado Health Sciences Center; 2002 Feb 1.

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Shaughnessy PW, Hittle DF, Crisler KS, Powell MC, Richard AA, Kramer AM, Schlenker RE, Steiner JF, Donelan-McCall NS, Beaudry JM, Engle K, Conway KS, West LR. OASIS and outcome-based quality improvement in home health care: research and demonstration findings, policy implications, and considerations for future change. Vol. 2, Research and technical overview. Denver (CO): Center for Health Services Research, University of Colorado Health Sciences Center; 2002 Feb 1.

MEASURE AVAILABILITY

The individual measure, "Improvement in Confusion Frequency," is published in "OASIS and Outcome-Based Quality Improvement in Home Health Care: Research and Demonstration Findings, Policy Implications, and Considerations for Future Change. Volumes 1-4." These documents are available from the [Centers for Medicare & Medicaid Services \(CMS\) Web site](#).

COMPANION DOCUMENTS

The following are available:

- Shaughnessy PW, Hittle DF. Overview of risk adjustment and outcome measures for home health agency OBQI reports: highlights of current approaches and outline of planned enhancements. Denver (CO): Center for Health Services Research, University of Colorado Health Sciences Center; 2002 Sep. 22 p. This document is available in Portable Document Format (PDF) from the [Centers for Medicare & Medicaid Services \(CMS\) Web site](#).
- Home health compare. [Web site]. Baltimore (MD): Centers for Medicare & Medicaid Services (CMS); [updated 2005 Sep 1]; [cited 2004 Sep 29]. [various]. Available at www.medicare.gov/HHCompare.
- Outcome and Assessment Information Set (OASIS) implementation manual: implementing OASIS at a Home Health Agency to improve patient outcomes. Baltimore (MD): Centers for Medicare & Medicaid Services; 2002 Dec [revised]. This document is available from the [CMS Web site](#).

- Outcome-Based Quality Improvement (OBQI) implementation manual.
Baltimore (MD): Centers for Medicare & Medicaid Services (CMS); 2002 Feb.
Various pagings. This document is available from the [CMS Web site](#).

NQMC STATUS

This NQMC summary was completed by ECRI on October 5, 2004. The information was verified by the measure developer on December 17, 2004 and was reviewed and edited on September 26, 2005.

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Date Modified: 9/25/2006

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